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Getting Started

Welcome

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Welcome

Getting Started

“Set Up the App”
“Locate and Add Your Reports”
“Open and View Reports”
Check out the new features.
Use VoiceOver? Learn the specialized accessibility actions for the app.
Learn about security features of the app.

Common Tasks

- View Reports
- Add a Server Connection
- "Search Reports"

Troubleshooting and Technical Information

- Chapter 8, “Troubleshooting SAS Visual Analytics App,”
- “URIs and Capabilities That Affect the Mobile App”
- Chapter 9, “Technical Information,”
- Chapter 10, “Getting Help,”

What’s New

What’s New in Release 8.40.2

SAS Visual Analytics App 8.40.2 for iOS provides fixes and enhancements.

**Improved Experience for New Users**

The app now provides an improved welcome experience for new users. After downloading the app, new users can do the following:

- set up the app through a guided interface.
- view sample reports.

What’s New in Release 8.40.1

SAS Visual Analytics App 8.40.1 for iOS provides fixes and enhancements.

**Improved Access to My Folder**

In the Add Reports window, My Folder is now third in a server’s list of root-level folders. This improvement is available when navigating servers running SAS Visual Analytics 8.1 or later.
What’s New in Release 8.40

SAS Visual Analytics App 8.40 for iOS provides fixes and enhancements.

Support for SAS Visual Analytics 8.4
The application now provides seamless support for SAS Visual Analytics 8.4, 8.3, 8.2, 8.1, 7.5, 7.4, and 7.3 servers.

Performance Improvements to Text-entry Field Prompts
The performance and user experience of text-entry field prompts is now improved.

What Is SAS Visual Analytics App?

SAS Visual Analytics App is a companion application to “SAS Visual Analytics”. It is a free mobile app that enables users to view the reports that are created in SAS Visual Analytics, and to share insights with anyone, anywhere.

Using SAS Visual Analytics App, you can view and share charts and reports on Apple, Android, or Windows devices. These include iPads, iPhones, Android tablets and smartphones, and Windows 10 tablets and personal computers. For device support information, see the SAS Visual Analytics App page in the applicable store:

- Apple App store
- Google Play
- Microsoft Windows store

SAS Visual Analytics App provides comparable features to the desktop report viewer, including support for the following tasks:

- download charts and reports from your organization servers
- view charts and reports in standard or expanded mode
- view and make comments about charts and reports

For information about the desktop report viewer, see “Desktop Report Viewer”.

SAS Visual Analytics App supports viewing reports even when your device is offline. See “Local Data Availability and Offline Reports”
Note: SAS also provides a free software development kit (SDK) that enables organizations to modify SAS Visual Analytics App to display a different logo and name. If your organization takes advantage of the SDK, you might see a name other than SAS Visual Analytics App when you access this application.

Throughout this Help, when you see the name SAS Visual Analytics, we are referring to the application in which the reports are created. When you see the generic term “the mobile app”, we are referring to this companion app, in which you can view and share those reports.

SAS Visual Analytics

SAS Visual Analytics leverages SAS high-performance analytic technologies and empowers organizations to explore huge volumes of data quickly to identify patterns, trends, and opportunities for further analysis. The highly visual, drag-and-drop data interface of SAS Visual Analytics, combined with the high-speed analytical servers, accelerate analytic computations and enable organizations to derive value from massive amounts of data. This creates an unprecedented ability to solve difficult problems, improve business performance, predict future performance, and mitigate risk rapidly and confidently. Users can quickly create reports or dashboards, which can be viewed on a mobile device or on the web.

Test Drive the App

When you download the app for the first time, the Welcome screen gives you the option to view sample reports without setting up the app. This provides an effortless way to try the app and experience how SAS Visual Analytics reports work on your device. You can also download additional sample reports. You must have internet access to do so.

**TIP** If you want to try creating reports in SAS Visual Analytics before you buy, see the SAS Visual Analytics Try Before You Buy Interactive Demo.

You can view sample reports in the following ways:

- Before setting up the app, you can tap **View Sample Reports** on the Welcome screen.
- After setting up the app, you can navigate to **My Reports**, **Recent**, or **Favorites**, and tap **...** Then tap **View Sample Reports**.

Set Up the App

When you download the app for the first time, the Welcome screen guides you through setting up the app so that you can connect to your organization’s server and download reports to your device.
TIP If you already use SAS Visual Analytics on your desktop or SAS Visual Analytics App on another device, then use the same security credentials and server information to set up the app.

Make sure you have your server connection information. See “Information Required by Users to Create a Server Connection”.

Sometimes an organization does not require security credentials. If your SAS administrator says you do not need a user ID, then select Log on as guest.

If your server connection also requires Esri credentials, enter your user ID and password for Esri services.

Note: Most organizations have specific instructions or requirements for using mobile devices. Contact your IT staff and SAS administrator for this information.

Locate and Add Your Reports

You can add any of your SAS Visual Analytics reports to the app. This includes reports that you have already viewed or have been shared with you on the desktop or on another device.

Note: (SAS Visual Analytics 8.4 and later) The Shared with Me folder is not available in the app. Use the following alternatives to locate these reports.

Use any of the following ways to quickly locate your reports and add them to the app.

Recent
If you have already viewed the report on any device, including your desktop computer, you can locate the report in Recent. All the reports that you have viewed recently are shown even if they are not on your mobile device.

Recent is located in two places:

- In Add Reports, the Recent folder is a top-level folder on the server. See “Open Add Reports”.
  
  When you locate the report, tap next to the report to add it to My Reports.

- The Recent view in the app. See “View Your Recent Reports”.
  
  When you locate the report, tap the report and then tap to add the report to the app.

Search
In Add Reports, select the server and search using the name of the report. See “Search Reports”.

When you locate the report, tap next to the report to add it to My Reports.

Favorites
Make your reports your favorites on any device, including your desktop computer. Then, you can locate the report in Favorites. All of your favorite reports are shown even if they are not on your mobile device.

Favorites is located in two places:

- In Add Reports, the Favorites folder is a top-level folder on the server.
When you locate the report, tap next to the report to add it to My Reports.

- The Favorites view in the app. See “View Your Favorites”.

When you locate the report, tap the report and then tap to add the report to the app.

Open and View Reports

After a report is downloaded to the app, you can open and view the report:

- In the Add Reports window, tap the report and then tap Open.
- On the Home screen in My Reports, tap the report.
- On the Home screen in Recent, tap the report and then tap Open.
- On the Home screen in Favorites, tap the report and then tap Open.

The report opens in the report viewer.

- To learn about report viewer features, see Chapter 5, “Viewing Reports,” and Chapter 7, “Sharing Reports.”
- Reports have the same functionality as they do in SAS Visual Analytics on the desktop, but use a mobile design. To learn more, see Chapter 6, “Navigating Report Features.”

App Symbols and Their Meaning

The app uses symbols to quickly communicate states and other information.

Note: If you need a description for symbols in a report, contact the report designer.

- Indicates that you have selected a report. See “Selecting Multiple Reports”.
- Indicates that the report is a favorite. See “Identifying Your Favorite Reports”.
- Indicates that the report is new or has been updated since you last viewed it.
- Indicates that an error has occurred and the report is currently unavailable.
- Indicates a secure server connection in the All Connections list.
- Indicates that the report uses remote data. See “Remote Data Availability and Report Security”.
Access Help in the App

If you have located the SAS Visual Analytics App Help by using an internet search, know that you can also open the Help while in the app.

Tap ⋮ and then tap Help.

The Help opens in your web browser. If your device supports a multitasking view, you can view the app and Help at the same time.

To return to SAS Visual Analytics App, tap Analytics in the upper left corner.

Limiting the App’s Cellular Data Use

Change the Cellular Data Setting

To learn more, see “About Cellular Data Use”.

To change the cellular data setting:

1. In My Reports, tap ⋮.
2. Tap Advanced Settings.
3. Tap the Cellular Data switch.
4. To return to SAS Visual Analytics App, tap Analytics in the upper left corner.

About Cellular Data Use

If your device provides cellular data access, you might want the app to use only Wi-Fi networks to download reports. Limiting the app’s use of cellular networks reduces your data use. When cellular data is turned off for the app, make sure that you are connected to a Wi-Fi network. The app requires a network for many tasks, such as the following:

- navigating reports on a server, adding and downloading reports
- using interactive features in reports, such as data drilling and filtering
- commenting

For more information, see “Local Data Availability and Offline Reports”. For information about additional cellular data settings, see the User’s Guide for your device.
By default, this setting is turned on.
Connecting to Servers

What Is a Server Connection?

An organization has one or more servers that contain SAS Visual Analytics reports. Most servers require that you provide security credentials before you can connect to them and access reports. In the mobile app, a server connection is saved information that includes the server address and your security credentials for a server. If your organization has more than one server, you can add connections to additional servers in the same way.

Note:

- Contact your network administrator about your organization’s requirements for mobile devices to access the network.
- Make sure you have your server connection information. See “Information Required by Users to Create a Server Connection”.

Information Required by Users to Create a Server Connection
Information Required by Users to Create a Server Connection

Typically, an organization requires that you use credentials to access a SAS Visual Analytics server.

If you have already viewed reports by using SAS Visual Analytics on your desktop or SAS Visual Analytics App on another device, then you already have the information you need. If you do not, contact your SAS administrator for the following information.

- the user ID and password to use.

  TIP You also use these to log into SAS Visual Analytics in your desktop web viewer.

- the server to use for the server connection.

  TIP This is part of the web address that you use to open SAS Visual Analytics in your desktop web viewer. Typically, it ends in ".com" or "_.org".

- the port to specify for the server connection.

  TIP This is part of the web address that you use to open SAS Visual Analytics in your desktop web viewer. It follows a colon (:). A typical value for unsecured servers is 80. A typical value for secured servers is 443.

- whether the server is a secure connection.

  TIP When you log into SAS Visual Analytics in your desktop web viewer, the web address field indicates whether the server is secure.

Sometimes an organization does not require security credentials. If your SAS administrator says you do not need a user ID, then select Log on as guest.

Guest Connection to a Server

A guest connection does not require security credentials. A guest connection allows you to download reports that an organization makes available to the public.

Note:

- SAS Demo Server, which provides sample reports in the app, is an example of a guest connection.

- The guest connection feature is not supported by servers running SAS Visual Analytics 8.1. The feature is supported on all other releases of SAS Visual Analytics.

Typically, guest connections do not support the following features:

- Recent
comments
alert subscriptions

If Favorites and Favorites setting are supported with guest connections, functionality is limited:

- When a report is viewed by way of a guest connection, no user can add that report to favorites.
- The favorites shown for the guest connection are shared by all users of that connection.
- You cannot remove these favorites.

Quickly Add a Server Connection

To help a colleague quickly and easily add a server connection, email a report to them. You can email a report from SAS Visual Analytics or from the mobile app.

Here is how it works:

1. Email a report to a colleague. The email contains a link to the report. See “Sending Reports to Others”.
2. The recipient taps the link in the email. When the app is installed on the recipient’s device, the link opens the app.
3. If the recipient does not have a connection to the required server, they are prompted to add the server connection to the Connections list.
   The recipient taps Yes.
4. If the server supports guest mode, the recipient is asked if they want to log on as a guest. If the recipient taps No, they are prompted to enter their user ID and password. If the recipient taps Yes, they proceed to the next step.
5. If your server connection also requires Esri credentials, enter your user ID and password for Esri services. To learn more, see “Maps and Their Data Options”.
6. The recipient is prompted to open the report. The recipient taps Yes.
   The app downloads the report and adds it to My Reports.
7. The recipient can tap the report to view it.

If the new connection is to a passcode-protected server, the recipient must create a passcode.

Add a Server Connection

Make sure you have your server connection information. See “Information Required by Users to Create a Server Connection”.

Complete these steps:
1 If you are not in **My Reports**, tap the list at the top of the Home screen and select **My Reports**.

2 Tap **Add** in the options bar at the top of the Home screen.

3 Tap **...** and **Add Connection**.

4 In the **Server** field, enter the address of the server.

5 In the **Port** field, enter the port number for the server.

6 Tap the **Secure connection** switch if the server requires a secure connection (SSL).

7 Tap **Next** to verify the connection.

   **TIP** If the connection fails, a message is displayed to help you correct the problem.

8 If the server provides guest access, the **Log on as guest** switch appears. If you want to access the server without providing credentials, tap this switch and skip the next step.

   **TIP** You might have to scroll the page up to view all of the fields.

9 If a server requires security credentials to access reports:
   - In the **User ID** field, enter your user ID.
   - In the **Password** field, enter your password.

10 (Optional) In the **Description** field, customize the description for the new connection.

    **Note**: If you delete the default description, you must enter a new description. The field cannot be left blank.

11 Tap **Next** to verify your access to the server.

    **Note**: If the verification fails, a message is displayed to help you correct the problem.

    Each organization’s network is unique. If you cannot access the SAS Visual Analytics server from your mobile device, contact the following people:
   - your network administrator. Ask about your organization’s requirements that enable mobile devices to access the network.
   - your SAS administrator. Ask whether your mobile device should be added to a whitelist. See “About the Whitelist”.

12 If your server connection also allows you to enable Esri premium services, you can do so at this point. If required, enter your user ID and password for Esri services. To learn more, see “Maps and Their Data Options”.

13 Tap **Done**.

The connection is saved and the Add Connection window closes. Information about available reports is automatically downloaded and appears in Add Reports.

If the new connection is to a passcode-protected server, you are required to create a passcode.
Change the Password for a Server Connection

Complete these steps in Add Reports:

1. If you have more than one server connection, make sure you have selected the server that you want to edit.
2. Tap ... and Edit Connection.
3. Tap the Password field and enter the new password.
4. Tap Done to save the update.

Change the Description for a Server Connection

Complete these steps in Add Reports:

1. If you have more than one server connection, make sure you have selected the server that you want to edit.
2. Tap ... and Edit Connection.
3. Tap the Description field and enter the new description. The field cannot be blank.
   
   Note: You might have to scroll the page up to view all of this field.
4. Tap Done to save the update.

Remove a Server Connection

When you remove a server connection, any reports that you added from the affected server are removed from your device.

Complete these steps in Add Reports:

1. If you have more than one server connection, make sure you have selected the server that you want to edit.
2. Tap ... and Edit Connection.
3. Scroll to the bottom and tap Remove Connection.
4. Tap Remove.
Accessing Esri Premium Services

If you did not enter your Esri Premium Services credentials when you set up your server connection, you can enter them later.

**TIP** Esri credentials can be different from your server credentials.

---

## Turn On Esri Premium Services

To turn on Esri premium services, you must edit the connection to a server that has Esri premium services.

Complete these steps in Add Reports:

1. If you have more than one server connection, make sure you have selected the server that you want to edit.
2. Tap … and **Edit Connection**.
3. Tap **Esri Premium Services**.
4. Tap the **Enable Esri Premium Services** switch.
   
   If you are not prompted to enter your Esri credentials, the Esri services are turned on at this point. Tap ✖️, tap **Done**, and skip the remaining steps.

   **Note:** This switch appears only if the Esri premium services capability is enabled for your user ID on the server. To enable the capability, contact your SAS Visual Analytics administrator.

5. If you are prompted for your Esri credentials, enter your user ID and password for the Esri premium services. These credentials might be different from those used for the server connection.
6. Tap ✖️.
7. Tap **Done**.

---

## Turn Off Esri Premium Services

To turn off Esri premium services, you must edit the connection to a server that has Esri premium services.

Complete these steps in Add Reports:

1. If you have more than one server connection, make sure you have selected the server that you want to edit.
2 Tap ... and Edit Connection.
3 Tap Esri Premium Services.
4 Tap the Enable Esri Premium Services switch.
5 Tap .
6 Tap Done.

Locking the App with the Passcode Feature

How the Passcode Feature Works

What Are Passcodes?

SAS Visual Analytics App provides a passcode feature that locks the app after a period of inactivity. There are two types of passcodes:

required passcode
A required passcode is a passcode that is required by a server connection. When you connect to a secure server, it requires that you create a passcode. An organization uses a required passcode to secure its reports.

You are prompted to create or enter a required passcode at these times:
- when you connect to a passcode-secured server for the first time
  Note: The first time the Passcode window appears, you can close the window without creating a passcode. However, when you attempt to add a report from a secure server, a passcode is required at that time.
- when you are connected to a secure server and the app has been inactive for a length of time
  Note: When you create a required passcode but later remove the server connection that required the passcode, the passcode functionality still applies and locks the app after a period of inactivity. However, the passcode is now optional. You can remove an optional passcode.

optional passcode
An optional passcode is a passcode that you choose to use to lock the app. The first time the Passcode window appears, you can close the window without creating a passcode. However, when you attempt to add a report, you must enter a passcode at that time. You can remove the passcode at any time.

You enter an optional passcode at these times:
- when you create the passcode
- when the app has been inactive for 5 minutes
How the Passcode Feature Locks the App

Whether required or optional passcodes are used, the app is locked after a period of inactivity or after a number of failed attempts to enter the passcode. Depending on the type of passcode in effect, the time of inactivity or number of passcode attempts you are permitted differs.

required passcode
- When the app is inactive for 15 minutes, the app is locked. The system administrator of the secure server can change this value.
- Permits a specific number of attempts. The system administrator of the secure server can change this value.
- When you exceed the number of attempts, the app is locked for 15 minutes. The system administrator of the secure server can change this value.

optional passcode
- When the app is inactive for 5 minutes, the app is locked.
- Permits 10 attempts.
- When you exceed the number of attempts, the app is locked for 15 minutes. The system administrator of the affected server can change this value.

With either passcode type, you can enter your passcode again after the lock-out expires.

If you then exceed the allowed number of passcode attempts a second time, the app removes all SAS Visual Analytics App reports, data, and server connections from your device. The app is reset to its default settings.

If you forget your passcode, you must delete and re-install the app on your device.

How Passcode Works with Touch ID and Face ID

Several models of Apple iPhone and iPad provide Touch ID or Face ID. You can use these features to lock your device. You can set up these features in the iOS Settings app. For more information, see documentation for the version of iOS running on your device.

Note: iOS also provides a Passcode feature. SAS Visual Analytics App uses its own passcode, not the iOS passcode. The app passcode locks only the app.

When the app requires you to use a passcode, you must create a passcode. Then, if Touch ID or Face ID is already set up, the app displays Touch ID or Face ID to unlock the app. You can cancel either of those options and enter the app passcode instead.

Create a Required Passcode

When you create a connection to a passcode-secured server, you must create a passcode.

After you save the connection, the Create Passcode window appears.

1 Enter a four-digit passcode that you can remember.
The Verify Passcode window appears.

2 Enter you passcode a second time.
   If your first and second try do not match, the app displays a message and you can enter the passcode again.

When the passcode that you entered is verified, the passcode is saved.

If you tap Cancel and do not create a passcode, you can still navigate to the reports on the server. However, if you attempt to add a report, the app requires that you create a passcode first.

---

Create an Optional Passcode

Complete these steps:

1 In My Reports, tap ...

2 Tap the Passcode switch.
   The Create Passcode window appears.

3 Enter a four-digit passcode that you can remember.
   The Verify Passcode window appears.

4 Enter your passcode a second time.
   If your first and second try do not match, the app displays a message and you can enter the passcode again.

When the passcode that you entered is verified, the passcode is saved.

---

Change a Passcode

Complete these steps:

1 In My Reports, tap ...

2 Tap Change Passcode.
   The Enter Passcode window appears.

3 Enter your current passcode.
   The Create Passcode window appears.

4 Enter a new four-digit passcode.

5 To verify the passcode, enter the new passcode a second time.

When the passcode that you entered is verified, the passcode is saved.

Tap Cancel if you do not want to change your passcode.
Remove an Optional Passcode

Complete these steps:

1. In My Reports, tap ...

2. Tap the Passcode switch.
   The Enter Passcode window appears.

3. Enter your current passcode to verify your identity and remove the passcode.

You can create an optional passcode at any time. See “Create an Optional Passcode”.
Adding and Updating Reports

Adding Reports

Open Add Reports
To open Add Reports:

1. If you are in the report viewer, tap \(\text{Exit}\) to exit.

2. If you are not in My Reports, tap the list at the top of the screen and select My Reports.

3. Tap Add in the options bar at the top of the app.

Locate a Report on a Server Connection
Complete these steps in Add Reports:

1. Tap a server connection.

2. Tap a folder to view its contents.

TIP When \(\text{ Added }\) is absent, the report was already added.
Add a Report

Complete these steps in Add Reports:

1. Navigate to the report.
2. Tap next to the report to add it to My Reports.

Updating Reports Automatically

When a report that you added to My Reports is updated on the server, SAS Visual Analytics App automatically updates that report on your device.

The app must be active to check for updates. These checks occur at the following times:

- when you start or re-activate the app
- every 15 minutes after the app opens

Note: The app cannot control how the device prioritizes the updates.

Note:

- If you have turned off the Cellular Data setting, reports that you added to My Reports are updated only when a Wi-Fi network is available.
- Automatic update does not apply to reports that use remote data.

Updating Reports on Demand

You can update a report to make sure you have the latest changes and data.

Update a Closed Report

To update a report on demand:

1. In the My Reports, Recent, Favorites, or collection views, touch and hold the report tile.
2. Tap .
Update the Report You Are Viewing

Complete these steps in an open report:

1. Tap ...

2. Tap Update.
   - If the report has no updates, a message is displayed.
     Note: A message is not displayed for remote-data reports.
   - If there are updates, the report is downloaded.

Notifications from the App

SAS Visual Analytics App uses the notification feature provided by your device to deliver its notifications. Notifications are enabled by default.

The app generates notifications when the following has occurred:

- One or more reports have been updated or are new on your device.
  
  Note: Notifications for new reports are typically displayed only when you add a large report and then close the app before the report has finished downloading.

- One or more reports have been added to or removed from a collection. You must add a collection in order to receive its notifications.

You can view and respond to these notifications in the Notification Center. You can personalize where the notifications appear on your device and control whether you receive notifications in the iOS Settings app. For more information about notifications, see the User’s Guide for the version of iOS running on your device.
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Viewing My Reports

In **My Reports**, you can manage the reports that are available to view on your device. You can also update reports with recent changes. All of the reports that you view are added from a server connection. See “What Is a Server Connection?”

View My Reports

**My Reports** is the default window in the app. It shows all of the reports that you have added on this mobile device.

If you are in Add Reports or the report viewer, tap \(<\) to return to **My Reports**.

If you are in **Recent**, **Favorites**, or a collection, tap the list at the top of the screen and tap **My Reports**.

Identifying Your Favorite Reports

Your Favorites on Every Device

In the app, **Favorites** shows the reports that you have marked as favorites. Your favorites are tracked by the server on which the reports are located. When you add a report to your favorites, the server adds that report to your favorites on any other devices that you use to view reports, including SAS Visual Analytics on your desktop system. The same is true when you remove a report from your favorites. However, your favorites are not shown on every device automatically. On each device you must first define the server connection to the server on which your favorite reports are located.

**Note:** If none of your server connections support the favorites setting, **Favorites** does not appear in the app.

View Your Favorites

In the list at the top of the screen, tap **Favorites**.

Favorites can contain one or more folders (also called groups). Tap a folder to display its reports. Folders can contain folders, too. Tap on the breadcrumb path to return to the previous level.
Add a Report to Favorites

You can add reports to your favorites while a report is open in the report viewer, or when a closed report appears in the following areas: My Reports, Recent, a collection, search results, or Add Reports.

Add an Open Report to Favorites

Complete these steps in the report viewer:

1. Open the tray:
   - (Tablet) Tap .
   - (Phone) Swipe up from the bottom of the report.

2. Tap .

3. Tap .

Add a Closed Report to Favorites

To add a closed report to your favorites:

1. Touch and hold on the report tile.

2. Tap .

In Add Reports, tap the report tile and tap .

You can also add multiple reports at one time. See “Selecting Multiple Reports”.

Remove a Report from Favorites

You can remove reports from your favorites while a report is open in the report viewer, or when a closed report appears in the following areas: My Reports, Recent, Favorites, a collection, search results, or Add Reports.

Remove an Open Report from Favorites

Complete these steps in the report viewer:

1. Open the tray:
   - (Tablet) Tap .
   - (Phone) Swipe up from the bottom of the report.

2. Tap .

3. Tap .
Remove a Closed Report from Favorites

To remove a closed report from your favorites:

1. Touch and hold on the report tile.
2. Tap ⭐.

In Add Reports, tap the report tile and tap ⭐.

You can also remove multiple reports at one time. See “Selecting Multiple Reports”.

Tracking Recent Reports

Recent contains reports that you have recently viewed on one of your devices.

Recent Reports on Every Device

Recent shows the reports that you have recently viewed on one or more of your devices. Recent reports appear in the app only after you have specified the connection to the applicable server. The history of your recent report access is maintained by the server on which the report is located. Your history is shared with all of the devices that you use to view reports from that server, including SAS Visual Analytics on your desktop system.

You can clear the history of report access, which clears Recent. Doing so clears the history on the selected server connection and on the device. If you have viewed reports from multiple server connections, you must clear the history for each server connection. See “Clear Recent”.

Note:

If none of your server connections maintain a history of your recently viewed reports, Recent does not appear in the app.

View Your Recent Reports

In the list at the top of the screen, tap Recent.

Clear Recent

To clear Recent:

1. In the list at the top of the screen, tap My Reports.
2. Tap Add.
3 Tap the server connection for which you want to clear the history.

4 Tap and Edit Connection.

5 Scroll to the bottom and tap Clear Recent Reports for Connection. Tap Clear recent reports.

**TIP** The button is disabled when the history has been cleared. If this button is disabled before you tap it, then there are no recent reports to clear.

6 Tap Done.

---

**View Collections**

**What Is a Collection?**

A *collection* shows a group of reports that a collection owner has selected and made available to users. Each collection is a selection in the navigation list.

A collection can also contain one or more folders (also called groups). Each folder can contain one or more reports or be empty. The reports contained in the folder are favorites that belong to the collection owner. By adding the folder to the collection, the owner has chosen to make the reports available to other users.

**What Is Auto-Add?**

*Auto-add* is a feature that automatically adds reports that are members of a collection. Auto-add works in the following ways:

- If you have not added any reports in the collection, selecting auto-add adds all of the reports to *My Reports*.
- If you have already added some of the reports in the collection, selecting auto-add adds the remaining reports to *My Reports*.
- If you have selected auto-add and new reports are added to the collection, the new reports are automatically added to *My Reports*.
- If you have selected auto-add and reports that you did not manually add are removed from the collection, those reports are automatically removed from *My Reports*.

When you remove auto-add, reports in the collection are no longer automatically added to *My Reports*.

**Note:** If you added some of the reports in the collection before selecting auto-add, they remain in *My Reports*. 
View a Collection

In **My Reports**, tap the list at the top of the screen and tap the name of a collection. The collection opens to display its reports.

A collection can contain one or more folders (also called groups). Tap a folder to display its reports. Folders can contain folders, too. Tap on the breadcrumb path to return to the previous level.

Auto-add a Collection

To learn how auto-add works, see “What Is Auto-Add?”

In the collection, tap ✅.

The button toggles to indicate the change: ✅.

Remove Auto-add

To learn how auto-add works, see “What Is Auto-Add?”

In the collection, tap ✅.

The button toggles to indicate the change: ✅.

Locate Details about a Report

Identify a Report’s Server and Path Information

Overview

The following slideshow introduces how to find a report’s server and path information. Detailed procedures follow the slideshow.

View the slideshow in SAS Help Center.

Identify an Open Report’s Server and Path Information

Complete these steps in an open report:

1. Open the tray:
Identify a Closed Report’s Server and Path Information
Complete these steps in the My Reports, Favorites, Recent, or collection views:

1  Touch and hold on the report tile.
2  Tap Details.

In the Add Reports window, tap a report tile to view its details.

Determine When a Report Was Updated

Determine When an Open Report Was Updated
Complete these steps in an open report:

1  Open the tray:
   1  (Tablet) Tap  .
   2  (Phone) Swipe up from the bottom of the report.
2  Tap  .

Determine When a Closed Report Was Updated

1  Touch and hold on the report tile.
2  Tap Details.

In the Add Reports window, tap a report tile to view its details.

View the Table of Contents for a Report

You cannot preview a report’s table of contents in the Add Reports window. For reports that use remote data ( ), the table of contents is not available until you open the report and the data is downloaded. See “Remote Data Availability and Report Security”.

View the Table of Contents for an Open Report
Complete these steps in an open report:

1  Open the tray:
Identify Who Created a Report

Identify Who Created an Open Report

Complete these steps in an open report:

1. Open the tray:
   - (Tablet) Tap }.
   - (Phone) Swipe up from the bottom of the report.

2. Tap [i].

Identify Who Created a Closed Report

In the My Reports, Recent, Favorites, or collection views, touch and hold on the report tile. The name of the person who created the report is shown beneath the report title.

In the Add Reports window, tap a report tile to view its details.
## Remove a Report

To remove a report:

1. Touch and hold on the report tile.
2. Tap **Remove**.

You can also remove multiple reports at one time. See “Selecting Multiple Reports”.

## Searching with Spotlight

### What Is Spotlight?

Spotlight is the search feature integrated into the iOS operating system on your device.

### Search with Spotlight

Complete these steps to search for the app, your server connections, or your reports:

1. On the Home screen, swipe down from the middle of the screen.
2. Tap the **Search** field.
3. Enter a keyword or phrase. Matching results appear as you type.
4. Tap a search result to open it.

## Searching Reports

The search feature is located in Add Reports. See “Open Add Reports”.
How Search Works

What Can I Search?

If you have more than one server connection, all servers are searched when you initiate the search on the page that displays the list of server connections. When a server is selected or you are navigating a server, only that server is searched.

**TIP**
- The search is not case sensitive.
- If you do not have a network connection, search is disabled.

During a search, the following content is reviewed for the search string:

- the report name
- report descriptions
- keywords
- the report source file

Because the report source file is also searched, some reports can appear in the search results because of a data set or object that is used in the report. For example, if a report uses a data set called *Cars*, that report will be in the search results for "cars." If a report contains a bar chart, that report will be in the search results for "bar chart."

Can I Narrow My Search?

You can narrow your search by using quotation marks ("), and the plus sign (+) and minus sign (–) operators.

- To specify some or all of a report title, enclose the title in quotation marks—for example, "accessibility in SAS Visual Analytics App". The search is not case sensitive.
- To require a term, prepend the term with the plus sign—for example, +sample.
- To exclude a term, prepend the term with the minus sign—for example, –sample.

You can also append a wildcard (*) operator to single- and multiple-word searches. For example, if you search for the word “sample,” then it is converted to sample*. You get different results than if you entered "sample", +sample, or *sample*.

How Many Results Can I Receive?

You can receive up to 100 results for each connection that you include in your search.
**Search Reports**

Complete these steps from Add Reports:

1. Tap the **Search for reports** field. The keyboard appears.
2. Enter all or part of a search string.

   **TIP** To narrow the search, use search operators.

3. Tap **Search** on the keyboard.
   The reports that include the search string appear in a results list.

4. (Optional) To add a report in the search results, tap that report, and then tap ![Open](note)

5. If you already added the report, you can open it. Tap the report and then tap **Open**.

6. To clear the search results, tap ![Clear](note) in the search field.

7. To dismiss search, tap **Cancel**.

**Sorting Reports**

You can sort reports wherever you see the **Sort** list.

**Sort Reports**

To sort reports, tap the **Sort** list and make a selection.

**Note:** Available sort selections vary depending on the view.

- **Name**
  sorts the reports by name and then by the date of the last successful update of the report on the server.

- **Connection**
  sorts the reports by their associated server connection, then by their name, and then by the date of the last successful update of the report on the server.

- **Date Added**
  sorts the reports by the date when they were added and then by their name.

- **Last Updated**
  sorts the reports by the date of their last successful update of the report on the server, and then by their name.
Most Recently Viewed

In My Reports, this selection sorts the reports by the date of their last access on this device and then by their name.

In the Recent view, this selection sorts the reports by their associated connection, then by the most recently viewed date across all devices.

Selecting Multiple Reports

You can use Selection mode to work with multiple reports at one time. Selection mode is available wherever you see the Select button. Depending on the location in the app, you can use Selection mode to add or remove reports from My Reports, share, email, copy, or add or remove reports from Favorites.

Select Multiple Reports in My Reports, Recent, Favorites, and Collections

Complete these steps in any of the views:

1. Tap Select.
2. Tap one or more reports.
   ![✓] indicates that a report is selected.
3. Tap Actions.
4. Tap the action that you want to complete.
5. If you decide not to act on the reports, tap Cancel to dismiss Selection mode.
Viewing Reports

Viewing Reports and Objects

Open a Report

Open a Report from My Reports
Tap any report tile.

Open a Report from Recent, Favorites, or a Collection
To view a report:

1 Tap the report tile to open the Details window.
2 If the report has already been added to your device, tap Open.
Otherwise, tap to download the report.

When the report is available, tap the report tile to open the Details window, and then tap Open.

Page through a Report

Reports can include more than one page.
To see and select from all the pages:

1. Open the tray:
   - (Tablet) Tap .
   - (Phone) Swipe up from the bottom of the report.

2. Tap the page that you want to view.

View an Object Using the Full Screen

To maximize an object:

1. If the tray is not already open, tap the object.

2. Maximize the object:
   - (Tablet) On the application bar, tap .
   - (Phone) Open the tray and tap .

To restore the object size:

1. If the tray is not already open, tap the object.

2. Restore the object size:
   - (Tablet) On the application bar, tap .
   - (Phone) Open the tray and tap .

View a Report Summary

Report designers can create report summaries that are available for viewing in the SAS Visual Analytics app. When you open a report that has a summary, you can view a textual report summary and play a recording of the summary that includes playback controls.

If available, you can access the summary from the following locations:

- a report tile in My Reports
- the tray in the report viewer
from the voice assistant when you request the report summary for a specific report.

To display the summary, select **Show Summary** from the Object Options window. The Summary window displays the report summary text. Controls in the window enable you to play and pause the recording. You can also advance or rewind the recording in 10-second increments.

---

**Overriding Report Themes**

**What Is a Theme?**

A report is designed to use specific colors and fonts. These are called a *theme*. You can override that theme when you view the report in SAS Visual Analytics App.

The following alternative themes are available:

- High Contrast
- Light (Marine)

To learn more about this feature, view the following slideshow.

**View the slideshow in SAS Help Center.**

**Override the Theme**

To override the theme:

1. If you are in the report viewer, tap ".
2. In **My Reports**, tap "...
3. Tap **Advanced Settings**.
4. Tap **Override Report Theme**. A list of themes opens.
5. Tap the theme that you want to use.
6. To return to SAS Visual Analytics App, tap **Analytics** in the upper left corner.

---

**Learning More about an Object**

**What Information Is Available about Objects?**

Each page of a report can contain one or more objects.

In the tray, you can review information about the report as a whole, or about a selected object. However, the information shown varies depending on how the report is designed. See your report designer for more information.

The object information includes:
- a description of the object
- legend information, if applicable
- display rules, if applicable
- filters, if applicable
- rank, if applicable
- alerts, if applicable

Note: The Alerts feature is not supported by servers running SAS Visual Analytics 8.1. The feature is supported by all other releases.

the Comments feature

View Information about a Report

To view information about a report:

1. Open the tray:
   - (Tablet) Tap 
   - (Phone) Swipe up from the bottom of the report.
2. Tap 

View Information about an Object

Note: The information view in the tray displays information about the selected object. If you select a link that takes you to a hidden page, the information view is refreshed to provide detailed information about the objects that are on the hidden page or about the hidden page itself.

Complete these steps in the report viewer:

1. Tap an object to open the tray. The object information is displayed.
   

   **TIP** If you see data information, tap **Back** to display the object information view.

2. (Tablets only) To view information about another object on the page, tap that object.
   
   The information view shows the information for the selected object.

3. Close the tray:
   - (Tablet) Tap 
   - (Phone) Swipe down from the top of the tray.
About the Report State

When viewing reports located on servers running SAS Visual Analytics 8.3 or later, the state of your report is saved when you close the report.

The *report state* can include selections that you have made in charts and graphs, interactions between objects, navigation into a hierarchy or Esri map, and much more.

If you use multiple devices (for example, a tablet and a phone) to view and update reports, the report state on the server reflects the most recent updates made before closing the report on any device.

**Note:** Large reports might require additional time to close because the app is saving many selections.

Restore the Default Report State

**TIP** This action affects only the selected report.

To restore an open report to its default state, tap \ldots and then tap **Restore Default Report State**.

To restore a closed report to its default state, complete the following steps:

1. Locate the report’s tile in **My Reports**.
2. Touch and hold on the report tile.
3. Tap **Restore Default Report State**.

You can also restore multiple report states at one time while in **My Reports**. All of the selected reports must be enabled to save the report state. See “Selecting Multiple Reports”.

---

Restoring the Report State
Receiving Alerts about Data Criteria

What Is an Alert?

An alert specifies criteria to monitor. When data in the report meets the criteria, an email or text message is sent to users that have subscribed to the alert. A report can have one or more alerts settings.

When you view the report in SAS Visual Analytics App, you can view the alerts that are set for that report. You can also see whether you are subscribed to an alert. If you are subscribed to an alert, when the alert criteria is met an email is sent to you.

Note:

- Alert criteria and subscriptions are set using SAS Visual Analytics. For more information, see SAS Visual Analytics documentation.
- The Alerts feature is not supported for reports located on servers running SAS Visual Analytics 8.1. It is supported by all other releases.

View Alert Subscriptions

The Alerts feature is located in the tray. To view alerts, complete these steps.

1. Open the tray:
   - (Tablet) Tap 
   - (Phone) Swipe up from the bottom of the report.
2. Tap 
3. Tap Alerts.

Using Best-fit Layout for Reports

What Is Best-fit Layout?

Note: This feature applies to reports located on servers running SAS Visual Analytics 7.4 and earlier.
Best-fit layout is when the app rearranges the layout of objects in a page for the best fit available. Use this setting to make your reports easier to view regardless of which device you use or how you hold your device. The best-fit layout adapts depending on your device (tablet or phone) and the device orientation (portrait or landscape).

Best-fit layout should not be used with some report features. Contact your report designer to learn if you should turn off best-fit layout.

- On a phone, the default setting is on.
- On a tablet, the default setting is off.

**Rearrange the Layout of Objects**

This setting affects the report that you are currently viewing as well as reports that you view subsequently.

This setting toggles between two states:

- Layout for limited space on smaller devices. The objects are laid out vertically. Scroll down to view all objects in a page.
  
  **Note:** If the device screen is large enough, the app will not change the layout.

- Layout for larger devices. The objects are laid out as designed by the report designer.

Complete these steps while viewing a report:

1. Tap . . .
2. Tap **Rearrange Layout**.

**Change the Best-fit Layout Setting**

This setting affects the layout of all reports.

To change this setting:

1. In **My Reports**, tap . . .
2. Tap **Advanced Settings**.
3. Tap the **Best-fit Layout** switch.
4. To return to SAS Visual Analytics App, tap **Analytics** in the upper left corner.
## Navigating Report Features

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Viewing Data

View Data Details

Objects in a report can display details about a data point.
To view the data details, tap on a location in an object.
If data details are available, they are displayed in the tray.

View Report Data in a Table

You can view underlying report data while viewing an object. In previous releases this was referred to as explore mode.

Complete these steps:

1. If the tray is not already open, tap the object.
2. Tap 🗒️ to view the object in full-screen mode.
3. Tap 📊 to open the table.

   TIP
   - If you do not see the button, open the tray.
   - You can still tap the object when the table is open.

   Data details appear in a table beneath the object.
4. Tap a row in the table to highlight the associated item in the object.

   TIP You can scroll the table up and down to view all of the rows.
5. Tap 🔼 to close the table.

Sort Column Data in Tables

By default, table columns support sorting. You can sort the values in an individual column. You can also set up primary and secondary sorts. If no columns sort, see Columns Do Not Sort in a Table.

To sort data in a column, tap the column heading.
The tray opens. Tap **Sorting** to display these options:

**Ascending**
- sorts the data from low value to high value (A to Z or from 0 to 9).

**Descending**
- sorts the data from high value to low value (Z to A or from 9 to 0).

**Advanced**
- displays secondary sorting options that you can apply to additional columns.
  - For each additional column that you want to sort, tap the column heading, tap **Sorting**, tap **Advanced**, and then tap **Secondary**. Tap **Ascending** or **Descending**.
  - **Note:** After you apply a secondary sort, creating or modifying the primary sort clears all previously applied secondary sorts.

**Reset**
- returns the data to its original sort order.
  - **Note:** A check mark indicates the current sort order of the data.

---

### Sort Data in Charts and Graphs

Charts and graphs have a predefined sort order that is determined by the report author.

In charts and graphs in which the report author has turned on X- and Y-axis labels, you can change the default sort order of either the X axis or Y axis or both.

To change the default sort order for a single measure (X axis, Y axis, or both) in a chart or graph:

1. Touch and hold the X-axis label and tap one of the following options:
   - **Ascending**
     - sorts the data from low value to high value (A to Z or from 0 to 9).
   - **Descending**
     - sorts the data from high value to low value (Z to A or from 9 to 0).
   - **Reset**
     - returns the data to its original sort order.
   - **Note:** A check mark indicates the current sort order of the data.

2. Touch and hold the Y-axis label. Tap **Ascending**, **Descending**, or **Reset**.

When multiple measures exist on a single axis, you can choose the measure upon which to sort.

For example, assume that the X-axis label presents two measures, one for **East Coast** and one for **West Coast**. In this case, tap the X-axis label, and then tap **Measure**. Tap **East Coast** or **West Coast**, and then tap the sort option that you want. Then, tap **Apply**.
View Upper and Lower Range Values for Forecasted Values

For every forecasted value, charts also provide an upper and lower range value.

To view the upper and lower range values:

1. Touch and hold your finger on the axis in the chart.
   
   A reference line appears. The reference line displays tooltips for the range values that intersect the reference line.

2. Without lifting your finger, move your finger along the axis.
   
   The reference line moves and displays the range for other forecasted values.

Report designers might include forecasted values on the following types of charts:

- bar chart
- line chart
- bubble chart
- scatter chart

Filtering Data

About Data Filters, Filter Controls, and Data Highlighting

Data Filters

SAS Visual Analytics App displays interactive reports. Depending on how a report is designed, you can select areas in a report to dynamically filter data.

**TIP** Be sure to ask your report designer to describe any filter controls that are available in the report and explain how to use them.

Report designers can use the following types of data filters in reports:

Object-level filters

- filters data in one or more objects. A report can include one or more of these filters.

Interactive filters

- an object provides interactive selections that filter one or more other objects on the same page.
For example, you have a report page that contains two objects: a pie chart and a bar chart. When you tap a slice in the pie chart, the value of that slice filters the data in the bar chart.

A report can include one or more of these filters.

Report-level filters
filters data in the report as a whole. A report can include one or more of these filters.

Page-level filters
filters data in the page as a whole. A report can include one or more of these filters.

Page-link filters
a link that opens another page in a report. Depending on the selection made in the source page, the link filters all of the objects in the target page. On the source page, page-link filters are located in an object’s context menu. On the target page, the applied filter value is located in the filter control bar.

Report-link filters
a link that opens another report. Depending on the selection made in the source report, the link filters all of the objects in the target report. In the source report, report-link filters are located in an object’s context menu. In the target report, the applied filter value is located in the filter control bar.

Incoming filters
filters data by one or more values that are passed in from another report or object. For example, when chart A interacts with chart B, the value selected in chart A is the incoming filter for chart B.

See also “Filter Controls” and “Filter Control Bars”.

Filter Controls

Filter controls provide a way for you to control how data is filtered in a report. For example, if data is filtered by month, a filter control enables you to specify a month. Report designers can select from a variety of controls when they create data filters in reports. Some filter controls are familiar, such as buttons, lists, text fields, check boxes, radio buttons, single sliders, and range sliders. Your report designer might customize the behavior of some of these controls, but the controls all work in a familiar way.

Other filter controls are less obvious, such as parameters, links, interactions, and highlighting. For example, your report designer can specify whether one-way filters appear in the filter control bar. Unless your report designer tells you that specific controls are present, you might not realize they are in the report.

**TIP** Be sure to ask your report designer to describe any filter controls that are available in the report and explain how to use them.

Filter Control Bars

When a report contains report-level, page-level, or interactive data filters, the filter controls are located on the applicable filter control bar.

Report-Level Control Bar
Report-level filters affect data in the report as a whole. The following examples are report-level filters:
- A filter control in the report that filters the report data as a whole.
- A link from a source report that opens a target report and filters its data

The filters are located in a control bar that is below the report title bar. The filter control bar is anchored to the report title bar so that you can use these filters on any page of the report.

**Page-Level Control Bar**
Page-level filters affect data on the current page only. The following examples are page-level filters:
- A filter control for a page that simultaneously filters all of the objects on that page.
- A link from one page in the report that opens another page and filters that page’s data.

The filter controls are located in a bar that is across the top of the page.

**Interactive-Filter Control Bar**
Interactive filters affect objects on the current page. This control bar appears across the top of the page. If page-level filters exist, the interactive-filter control bar appears under the page-level control bar.

The interactive-filter control bar displays one-way filters and two-way filters that you select on the current page. One-way and two-way filters behave as follows:
- **One-way filters**: A selection in object A filters all objects on the page. A selection in object B filters all objects on the page, except object A.
- **Two-way filters**: A selection in object A filters all objects on the page. A selection in object B filters all objects on the page, including object A.

**Data Highlighting**
Reports can be designed to enable the *highlighting of data*. As with filtering, you select a filter value. However, instead of displaying only the data that is filtered, the affected data is highlighted.

**Note:** Highlighting is also called *brushing or linked selection*. Highlighting is not the same as report-link filters or page-link filters.

Depending on how an object is designed, you can highlight data in the following ways:
- make a selection from a filter control.
- tap a value in a chart or graph.
- tap a value in a table or crosstab.

The data is highlighted in one or more objects in the report page.

**View Values of Interactive Filters**
The interactive filter control bar displays one-way filters and two-way filters that you select on the current page. If no selections are made on the page, **No Selections** appears next to the **Filters** label at the beginning of the control bar.
When you select a value in an object that has an interactive filter, a filter control appears in the control bar. The control indicates the selected value. If you select a different value in the filter, the text in the filter control is updated to reflect the new selection.

You can clear one or more filters:
- Tap to clear a filter and remove the control from the control bar.
- Tap **Clear All** to clear all the filters and to remove their filter controls from the control bar.

**Note:** If an object (such as a control prompt) requires a filter, the clear button does not appear in the filter control.

If you can select multiple values in an object, the filter control displays the appropriate category or column name followed by the number of selected values. Tap ▼ to see a list of the selected values. To remove a value from the list and clear its selection in the filter, tap ✗.

If multiple one-way filters are selected, a separator (✓) appears between their controls on the bar. The separators indicate that the selection in one filter affects the other filters. Separators are not displayed when multiple two-way filters are selected.

**Note:** If you clear a one-way filter or change the selected value for a one-way filter, subsequent filters on the control bar are cleared. Their filter controls are removed from the control bar. Changing the selected value for a two-way filter or clearing its filter control has no effect on other filter controls on the control bar.

---

**Toggle the Filter Control Bars**

The filter control bars toggle:
- You can display the filter control bars to view filter values.
- You can hide the filter control bars so that the report has more screen space.

To toggle the filter control bars:
1. Tap 📚 in the report title bar.
2. Tap the available selection: **Hide Control Bar** or **Show Control Bar**.

See also “Filter Controls” and “Filter Control Bars”.

---

**View Filters That Run Off the Screen**

If the control bar has more filters than it can display (for example, on a phone), the bar scrolls horizontally. Drag left and right to view the filters.
View the Filter Value on a Slider Control

When a report uses a slider control, you can touch and hold your finger on the slider bar or the slider indicator to see the filter value.

Animate an Object

In animated objects, the data points are animated across a range of time.

1 Tap the object.
   The Play button (▶) appears in the lower left corner.

2 Tap ▶ to start the animation.
   A progress indicator for the time range appears briefly.
   - The value on the left is the current time point in the animation time range.
   - The value on the right is the final time point in the animation time range.

3 To view different time points in the animation, drag the progress indicator along the time range.

4 Tap || to pause the animation and display the progress indicator.

Linking to Other Data or Information

What Are Links?

If an object provides links, they are available in the tray.

Depending on how a report is designed, objects can include the following types of links:

- Page links
  links from one page in a report to another page in the same report.
  The link can also include a filter value. In the target page, the button is enabled in the report title bar if the link applied a filter value. See “Toggle the Filter Control Bars”.

- Report links
  links from one report to another report.
The link can also include a filter value. In the target page, the button is enabled in the report title bar if the link applied a filter value. See “Toggle the Filter Control Bars”.

External links
links from the report to an external location, such as a web page.

Hidden page links
links from an object to a page that appears only when the link is tapped. A link can be attached to an object, image, or text. The hidden page opens on top of the current report page. A hidden page can contain one or more objects. The link can also include a filter value.

Note: This link type was formerly called Info window.

Link to Another Page or Report

Complete these steps in a report:

1. Tap on a data point in an object.
2. In the tray, tap Link.
   The linking options appear.
3. Tap your selection.
   The linked location opens.
4. (Optional) If a link applied a filter to the data in the target report or page, you can view the applied filter and its value.
   Tap the object to display the object information in the tray.
   Also, when a link applies a filter, the button in the upper left corner is enabled.
   Tap to view the filters that are applied to the data.

Return to a Prior Link Location

When you have linked across multiple pages or reports, you can review the trail of your navigation and return to a prior link location.

To go back one step, tap .

To review the trail of your navigation and select a prior link:

1. Touch and hold .
2. Tap a selection in the trail to return to that location.

To exit the report viewer and close all reports, tap Close All Reports.
Link to an External Location

To link to an external location:

1. Tap on a data point in an object.
2. In the tray, tap Link.
   - The linking options appear.
3. Tap the external link.
   - The linked location opens in a new window.
4. To return from the external link, tap Analytics in the upper left corner.

Drilling Into Data Hierarchies

What Is a Hierarchy?

A hierarchy is an arrangement of category columns that is based on parent-child relationships. The levels of a hierarchy are arranged with more general information at the top and more specific information at the bottom. For example, a hierarchy of date-time columns contains Year as the top level, Month as the next level, and Day as the bottom level.

Hierarchies enable you to drill down in charts, graphs, and crosstabs (also known as crosstabulation tables). An object can be designed with one or two data hierarchies. For example, an object might have a date-time hierarchy and a geographic hierarchy.

Ways to Navigate Hierarchies

If an object provides data drilling options, they are available in the tray. In a crosstab, data-drilling options are also provided as links in the table itself.

Depending on how an object is designed, you can navigate hierarchies in the following ways:

- drill down in a hierarchy to a subset of data and detailed information
- drill up in the hierarchy to a broader data view and general information
- expand or collapse the data hierarchy in a crosstab
- navigate one or two hierarchies
Navigate a Data Hierarchy

To drill down or up:

1. Tap on a data point in an object.
2. In the tray, tap ↓
   The data-drilling options appear.
   
   **Note:** If an object contains two hierarchies, an indicator ( ● ● ) appears at the bottom of the tray.
   
   Flick left and right to alternate between the hierarchies.
3. Tap your selection. The new data view appears in the object.
4. To view another level of the data hierarchy, repeat steps 1 through 3.

**TIP** To navigate upward in a hierarchy, tap ↑

5. To view the available selections in a level in one or more hierarchies, or to change a selection:
   a. In the tray, under Object Info, tap Drill to.
      The Hierarchy Navigation view appears.
      
      **Note:** If the object contains two hierarchies and you have drilled into both, you can view the levels in both hierarchies.
   b. To view another level, tap that level. The object draws the new data view.
   c. To change the selection for a level, tap ‚ for that level to view a list, and then tap your new selection. The object draws the new data view.

View Warnings about an Object

If you drill down to a level of the object that does not have data, a warning appears in the lower right corner of the affected object: 📝.

To view more information about the warning, tap 📝.

Expanding Crosstab Hierarchies

**Why Expand a Crosstab Hierarchy?**

You can expand a crosstab hierarchy. Expansion enables you to view multiple levels of data at a time.
For example, in a crosstab that summarizes data for several years, you can expand one or more of the years. The expansion enables you to see the data at the year level and, for the years that you expanded, the data at the month level as well.

Alternatively, you can expand all the children of a hierarchy level. For example, given the same report, you can expand all the years at the same time to review their monthly data.

Note: You can view the rank applied to the crosstab in the tray.

Expand the Hierarchy in a Crosstab

To expand a single item in a crosstab (for example, to expand the year 2017):

1. Tap the item.
2. In the tray, tap \(\uparrow\).
3. In the tray, tap \(\downarrow\).

To expand all of the children for a level in a crosstab (for example, to expand the months for all of the years):

1. Tap a column heading or row heading.
2. In the tray, tap \(\uparrow\).
3. In the tray, tap \(\downarrow\).

The crosstab expands to display the data that is the next level down in the hierarchy.

To collapse a single item in a crosstab (for example, to collapse the year 2017):

1. Tap the item.
2. In the tray, tap \(\downarrow\).
3. In the tray, tap \(\uparrow\).

To collapse all of the children for a level in a crosstab (for example, to collapse the months for all of the years):

1. Tap a column heading or row heading.
2. In the tray, tap \(\downarrow\).
3. In the tray, tap \(\uparrow\).
Exploring Data On Maps

Maps and Their Data Options

A report can contain an object that uses maps as a background for data. SAS Visual Analytics uses maps provided by the Esri and OpenStreetMap geographic mapping services to display data points. SAS Visual Analytics retrieves map tiles and location information from these services and then overlays your organization’s data onto the maps.

Depending on how the report is designed, your data can appear on the map as map coordinates, bubbles plotted onto the map, or regions on the map.

You can use the following options:

Search
Search the map for street addresses or points of interest (for example, restaurants).
See “Search the Map”.

Distance
Identify data points on a bubble or coordinate map that are within a specified radial distance from a selected point. The map zooms in and highlights the affected area. Data points outside of the affected area remain on the map but are not selected.
See “Identify Data Points by Distance”.

Drive distance
(Premium) Identify data points on the map that are within a specified driving distance from a selected point. The map zooms in and highlights the affected area. Data points outside of the affected area remain on the map but are not selected.
See “Identify Data Points By Drive Distance”.

Drive time
(Premium) Identify data points on the map that are within a specified driving time from a selected point. The map zooms in and highlights the affected area. Data points outside of the affected area remain on the map but are not selected.
See “Identify Data Points by Drive Time”.

Demographic data
(Premium) Select and view up to ten items of demographic data associated with your selected area on a map.
See “Select Demographic Data”.

Remember the following considerations about premium services:

- Premium services are supported only on servers running SAS Visual Analytics 8.1 or later.
- Your organization uses Esri credits to pay for using the following options:
- drive distance.
- drive time.
- the break option. See “View Distance Data Points in Sequence”.
- demographic data provided by the Esri GeoEnrichment service.

To use these features, you must provide login credentials for the mapping service on at least one of your devices.

You might need additional capabilities assigned to your user ID. Contact your SAS administrator.

You can disable and enable the premium services. See “Turn On Esri Premium Services” and “Turn Off Esri Premium Services”.

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**View Distance Data Points in Sequence**

You can select additional distances to highlight on the map. Each distance is identified by a *break*. You can select additional distances when using the **Drive time** and **Drive distance** selections.

For example, you want to identify customers that are within 5 miles and 10 miles of a location. When you select **Drive distance**, you set the distance for 5 miles. Then, you add a break and select a distance of 10 miles. The mapping service calculates both distances and highlights the affected areas on the map. The area within 5 miles is a shade of gray. The area within 5 to 10 miles is another shade of gray.

**TIP** This option is a premium feature provided by the mapping service. When you specify more than one distance, the calculation costs more and takes longer to process. The app supports up to five distances or time spans in a calculation.

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**View Details about a Map Data Point**

To view data about a data point, tap that data point in the map. The tray displays information about the data.

---

**Pan the Map**

To view areas of the map that are outside the area of the object, you can pan the map:

1. To turn on Pan mode, pinch or spread your fingers on the object to zoom in or out.
   
   **TIP** Zooming the object alerts the app that your subsequent gestures are not intended to page through the report.

2. Drag a finger on the map to pan the viewable area.
3 Turn off Pan mode. Double-tap the map to restore its original view.

**TIP** You can now page through the report again.

---

**Search the Map**

You can search for street addresses or points of interest (for example, pizza restaurants). You can receive up to 20 results.

**TIP** If there are more than 20 results, the 20 shown are those nearest the current visual center of the map.

Complete the following steps:

1 If the tray is not already open, tap the map to open it.

2 Tap to view the map in full-screen mode.

3 Drag your finger on the map to position your chosen location to the visual center of the map.

**TIP** Search works from the current visual center of the map and continues outward.

4 Tap .

**TIP** If you do not see the button, open the tray.

5 Enter your search string in the **Search** field.

Depending on what you enter, the Search interface displays up to 20 suggestions. Up to five recent search strings for searches that have occurred during the current app session are also displayed. As you continue to type, new suggestions replace earlier ones.

**TIP** Search works within the current visual bounds of the map. If you want search results outside the current visual bounds, you must drag the map to view the area in which you want to receive new search results and tap again.

6 To initiate a search using the string that is entered, select . Alternatively, you can select any one of the suggested search items or recent search items in the list.

The search results appear. A location pin for each result appears on the map. The pin number matches its result. When available, the search results also provide the name and street name of each location.

7 Tap a result to highlight its pin on the map. Tap the pin to display the location data in the tray.
8 You can highlight data points surrounding the selected result by selecting a distance option.

Note: For information about premium services, see "Maps and Their Data Options"

Tap Distance.

Distance
Specify a distance from the search result location.

Drive time
(Premium) Specify a drive time from the search result location.

Drive distance
(Premium) Specify a driving distance from the search result location.

9 To start a new search, tap \( \times \) in the Search field.

Identify Data Points by Distance

To identify data points that are located within a specified distance:

1 Select the location to use for the center of distance calculation:
   - To select a data point, tap the data point, and then tap \( \times \) in the tray.
   - To select any location on the map, touch and hold on that location.

2 Tap Distance.

3 By default, miles is the selected measure. Tap Unit to display a menu that enables you to switch between Miles and Kilometers. Tap the unit of measure that you want.

4 Specify the distance by dragging the indicator on the selection bar.

5 Tap Apply.

   The app zooms into the map and highlights the data points that are located within the specified distance.

Identify Data Points by Drive Time

Note: For information about premium services, see "Maps and Their Data Options"

To identify data points that are located within a specified drive time:

1 Select the location to use for the center of distance calculation:
   - To select a data point, tap the data point, and then tap \( \times \) in the tray.
   - To select any location on the map, touch and hold on that location.

2 Tap Drive time.

3 Specify the drive time by dragging the indicator on the selection bar.
4. (Optional) To identify more than one set of data points, tap **Add Break** and enter an additional data point.

   See “**View Distance Data Points in Sequence**”

5. Tap **Apply**.

   The map highlights the data points that are located within the specified drive time.

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### Identify Data Points By Drive Distance

**Note:** For information about premium services, see “**Maps and Their Data Options**”

To identify data points that are located within a specified drive distance:

1. Select the location to use for the center of distance calculation:
   - To select a data point, tap the data point, and then tap 🆕️ in the tray.
   - To select any location on the map, touch and hold on that location.

2. Tap **Drive distance**.

3. By default, miles is the selected measure. Tap **Unit** to display a menu that enables you to switch between Miles and Kilometers. Tap the measure that you want.

4. Specify the drive distance by dragging the indicator on the selection bar.

5. (Optional) To identify more than one set of data points, tap **Add Break** and enter an additional data point.

   See “**View Distance Data Points in Sequence**”

6. Tap **Apply**.

   The map highlights the data points that are located within the specified drive distance.

---

### Select Demographic Data

After you create a geographic selection using the distance, drive distance, or drive time option, the app displays a map pin on the selected data point. The context menu for the pin and the geographic area includes the **Show demographics** option. Use this option to select up to ten items of demographic data to view for the geographic selection.

**Note:** This feature is available only for bubble and coordinate maps.
Using Underlying Map Data

View Map Data in a Table

You can view the underlying data while working with a map.

Complete these steps:

1. If the tray is not already open, tap the map to open it.
2. Tap to view the map in full-screen mode.
3. Tap .

Data details appear in a table below the map.

TIP
- If you do not see the button, open the tray.
- You can still tap the map when the table is open.

4. Tap a row in the table to highlight the associated item in the map.

TIP You can scroll the table up and down to view all of the rows.

5. Tap to close the table.

Highlight Map Data

You can select areas on the map and the associated table data is highlighted.

Complete these steps:

1. If the tray is not already open, tap the map to open it.
2. Tap to view the map in full-screen mode.
3. Tap .
4. Tap .

TIP
- If you do not see the button, open the tray.
- You can still tap the map when the table is open.

5. Tap a selection shape: or .

Note: The shapes that are available depend on how the report is designed.

6. Tap and drag on the map to select an area of the map.
The associated data for this area is highlighted in the table.

7 To highlight other table data, tap inside the selection shape and drag to the new area.
   The movement is reflected in the table.

8 To dismiss the selection, tap outside the selection shape.

Select Map Data to Interact with Other Objects

When viewing the map data in a table, you can select areas on the map to identify data for an interaction in other objects. Because you must view the map in full-screen mode to view the data table, you cannot see the interactions when they occur. You must restore the map to its initial size and review the other objects for interactions.

**TIP** Ask your report designer if the map has any interactions with other objects.

Complete these steps:

1 If the tray is not already open, tap the map to open it.

2 Tap ⬇️.

   Data details appear in a table below the map.

   **TIP**
   - If you do not see the button, open the tray.
   - You can still tap the map when the table is open.

3 Tap ⬇️.

   **TIP**
   - If you do not see the button, open the tray.
   - You can still tap the map when the table is open.

4 Tap a selection shape: □ or 🔍.

   **Note:** The shapes that are available depend on how the report is designed.

5 Tap and drag on the map to select an area of the map.

6 Tap ▾ to restore the map to its initial size.

   **TIP** Be careful not to tap the map and dismiss the selected area.

7 Review the objects on this page for interactions based on the data selected.
Sending Reports to Others

How Can I Send a Report?

The app generates a report link that enables you to send a report. A report link is a link that opens the report. You can send a link by using email or text. You can also use AirDrop or copy and paste a report link into another app.

When a recipient taps the link, the app downloads the report and adds it to My Reports, and opens it. If the recipient does not have a server connection to the server on which the report is located, the app automatically sets up the connection.
Email or Text a Report

To email or text a report:

1. Do one of the following:
   - In the report viewer, open the tray:
     - (Tablet) Tap 📄.
     - (Phone) Swipe up from the bottom of the report.
   - In the My Reports, Recent, Favorites, or collection views, touch and hold on the report tile, and then tap Details.
   - In Add Reports, tap a report.

2. Tap 🖇.

3. Tap Mail or Message.
   A window appears with the report information.

4. Tap the To field and enter the contact information for the recipient.

5. (Optional) Tap the message area to enter text.

6. Tap Send.

You can also send multiple reports at one time. See “Selecting Multiple Reports”.

AirDrop a Report

Use AirDrop to share a report with another iPad or iPhone user. Typically, AirDrop works within 30 feet.

1. Do one of the following:
   - In the report viewer, open the tray:
     - (Tablet) Tap 📄.
     - (Phone) Swipe up from the bottom of the report.
   - In the My Reports, Recent, Favorites, or collection views, touch and hold on the report tile, and then tap Details.
In Add Reports, tap a report.

2 Tap 📩.

3 Tap AirDrop.

4 Tap the AirDrop contacts with whom you want to share.

Copy a Report Link

You can copy a report link without adding the report to My Reports:

1 Do one of the following:
   - In the report viewer, open the tray:
     - (Tablet) Tap 📖.
     - (Phone) Swipe up from the bottom of the report.
   - In the My Reports, Recent, Favorites, or collection views, touch and hold on the report tile, and then tap Details.
   - In Add Reports, tap a report.

2 Tap 📩.

3 Tap Copy.

You can also copy multiple report links at one time. See “Selecting Multiple Reports”.

Receive a Report Link

When you receive an email or a text message with a link to a report, tap the link to open the report.

- If you already added the affected report to My Reports, SAS Visual Analytics App opens the report.
- If you have not added the report, the app asks whether you want to download the report.
- If you choose to download the report, the app asks whether to open the report when the download is complete.
- If you have not created a connection to the server hosting the report, the app prompts you to create a connection.
Present Your Screen to Others

You can share your device screen with others while you use SAS Visual Analytics App. Participants invited to the presentation do not require SAS Visual Analytics App. The screen is viewed in a web browser. The web browser can be located on a desktop system or a mobile device.

Note: Present screen is for SAS Visual Analytics App only. When you leave the app, the presentation automatically pauses.

This feature is located in the report viewer. Tap ... and then tap Present Screen.

Using the Touch Indicator for Presentations

What Is a Touch Indicator?

A touch indicator is a small circle that indicates where your finger is touching the screen. When your device is connected to a display device, either by cable or wirelessly, you can use the touch indicator setting. The touch indicator enables your audience and yourself to see what you are touching on the display.

When this setting is turned on, the app can display the touch indicator.

By default, this setting is turned on.

Change the Touch Indicator Setting

To change the touch indicator setting:

1 In My Reports, tap ...

2 Tap Advanced Settings.

3 Tap the Touch Indicators switch.

4 To return to SAS Visual Analytics App, tap Analytics in the upper left corner.
Annotating a Report Page

What Is Annotation?

When you select the Annotate feature, the app creates a screen capture of the current page that you are viewing in the report. You can draw and write your observations on the image.

When you are finished, you can share the annotated image with others.

Annotate a Report Page

To annotate a copy of a report page:

1. Open the tray:
   - (Tablet) Tap .
   - (Phone) Swipe up from the bottom of the report.
2. Tap .
3. Tap Annotate.

An image of the page that you are viewing appears.

The following tools are available:

- Tap the pen to write or draw on the image. You can change the color and width of the output. This is the default tool.
- Tap the highlighter to draw translucent color on the image. You can change the color and width of the output.
- Tap the eraser to erase parts of the annotation.

Tap Clear All to clear all of the annotation. You can also change the size of the eraser.

- Tap the Undo button for each action that you want to undo.
- Tap the Redo button for each action that you want to redo.

Share the Annotated Page

You can share the annotated image in the following ways:

- Share an image of the annotated page using email or text messages.
- Copy an image of the annotated page to your device clipboard and paste the image into another app.
- Save an image of the annotated page on your device.

### Save the Annotated Page

Save your annotated page before you exit the Annotate Page window. If you do not save, your annotated page is discarded.

1. Tap Done.
2. Tap Save Image.

The image of your annotated page is saved to the Photos app.

### Exit the Annotate Window

To exit the Annotate window:

1. Tap Done.
2. Tap Discard in the Discard Annotation message.

**Note:**
If you have not saved the annotated page, it is discarded. To save, tap Cancel to return to the window. Then, see “Save the Annotated Page”.

### Copy the Annotated Page

You can copy an image of your annotated page to your device clipboard, and then paste the copy into an app that accepts images.

1. Tap .
2. Tap Copy.
3. Open another app that can accept images.
4. In the applicable location in the other app, touch your finger on the screen and then release.
   An action palette appears.
5. Tap Paste.

The image of the annotated page appears in the other app.
Printing Reports

Print a Report While Viewing It

**TIP** You must use an AirPrint-enabled printer.

To print a report:

1. Open the tray:
   - (Tablet) Tap \( \) .
   - (Phone) Swipe up from the bottom of the report.
2. Tap \( \)
3. Tap \( \).
4. Tap **Print**.
   A progress indicator appears. The server connection generates a PDF of the report. The PDF is downloaded to your device.

**TIP** To cancel the process, tap **Cancel** on the progress indicator.

5. In the Printer Options menu, tap **Select Printer**.
6. Tap the printer to use. It must be an AirPrint-enabled printer.
7. Tap **Print**.

Print a Report from Add Reports

**TIP** You must use an AirPrint-enabled printer.

You can print reports whether or not you have added them to **My Reports**:

1. Tap the report.
2. Tap \( \).
3. Tap **Print**.
   A progress indicator appears. The server connection generates a PDF of the report. The PDF is downloaded to your device.
4 In the Printer Options menu, tap Select Printer.
5 Tap the printer to use. It must be an AirPrint-enabled printer.
6 Tap Print.

Print a Report from Search Results

**TIP** You must use an AirPrint-enabled printer.

You can print reports whether or not you have added them to My Reports:

1 Touch and hold on the report tile.
2 Tap 
3 Tap Print.

A progress indicator appears. The server connection generates a PDF of the report. The PDF is downloaded to your device.

**TIP** To cancel the process, tap Cancel on the progress indicator.

4 In the Printer Options menu, tap Select Printer.
5 Tap the printer to use. It must be an AirPrint-enabled printer.
6 Tap Print.

Print a Report While in My Reports, Recent, Favorites, or Collection Views

**TIP** You must use an AirPrint-enabled printer.

You can print reports whether or not you have added them to My Reports:

1 Touch and hold on the report tile.
2 Tap 
3 Tap Print.

A progress indicator appears. The server connection generates a PDF of the report. The PDF is downloaded to your device.

**TIP** To cancel the process, tap Cancel on the progress indicator.
4 In the Printer Options menu, tap **Select Printer**.

5 Tap the printer to use. It must be an AirPrint-enabled printer.

6 Tap **Print**.
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Problems in My Reports, Recent, Favorites, or Collections

A Report Is Missing

Problem: A report that was previously in My Reports, Recent, Favorites, or a collection, is no longer there.

Explanation 1: When a report is removed from the server, the report is removed from your device the next time it connects to the server.

Resolution 1: Contact the author of the report.

Explanation 2: If the report is in a collection, when the owner of the collection removes a report from the collection, the report is removed from your device the next time it connects to the server where the collection is located.

Resolution 2: Contact the owner of the collection.

Favorites Is Empty

Problem: You added one or more reports to Favorites, but Favorites is empty.

Explanation: The ability to view reports from a particular server in Favorites (and in the Favorites folder in the Add Reports window), is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myFavorites.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

Cannot Add a Report to Favorites

Problem: You can view a report, but you cannot add the report to favorites.

Explanation 1: You are accessing the report using a guest connection to the server.

In this situation, the Favorites setting is not enabled or only the SAS administrator can add and remove reports from Favorites. See “Guest Connection to a Server”

Resolution 1: Contact the system administrator for the affected server.
Explanation 2: The ability to add a report to Favorites is controlled by an administrative setting.

Resolution 2: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myFavorites.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

Cannot Remove a Report from Favorites

Problem: You cannot remove a report from Favorites.

Explanation 1: You are accessing the report using a guest connection to the server. In this situation, the Favorites setting is not enabled or only the SAS administrator can add and remove reports from Favorites. See “Guest Connection to a Server”

Resolution 1: Contact the SAS administrator for the affected server.

Explanation 2: The ability to remove a report from Favorites is controlled by an administrative setting.

Resolution 2: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myFavorites.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

A Report Tile Does Not Display an Image

Problem: When you are in My Reports, Recent, Favorites, or a collection, or in search results, one or more report tiles do not display an image.

Explanation: When possible, an image from the report is auto-generated for the report tile. If an image cannot be generated, the report tile displays a default image.

Resolution: The report tile is working as designed.

**TIP** The default image differs from , which indicates a report that uses remote data. See “Remote Data Availability and Report Security”.
Recent Is Empty

Problem: You have viewed reports, but Recent is empty.

Explanation: Recent can be empty because of the following reasons:

- You downloaded and viewed the report using a guest connection to the server. Reports viewed using a guest connection are not included in the history of recently viewed reports.
- You cleared the recently viewed reports history for the connection.
- The server on which the affected reports are located might have reset your history.
- The ability to view the content of Recent is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server. If the issue is a missing administrative setting, the administrator uses one of the following settings:

- (SAS Visual Analytics 8.1 or later) The required URI is /folders/folders/@myHistory.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

Cannot Delete Reports in My Reports

Problem: You cannot delete a report in My Reports.

Explanation: Some of the reports in My Reports are part of a collection that you have auto-added. You cannot delete auto-added reports.

Resolution: To remove the reports, clear the auto-add option for the affected collection. See “Remove Auto-add”.

The Restore Default Report State Option Is Not Available

Problem: When you touch and hold on a report tile, Restore Default Report State is not available.

Explanation: This option is not available for this report for one of the following reasons:

- You have not added the report. If the report tile is in Favorites or Recent, the report might not be added to the affected device.
- The SAS administrator did not enable saving the report state on the server.
- Only servers running SAS Visual Analytics 8.3 and later support saving the report state.
Resolution: Make sure that you have added the report. If the option is still unavailable, contact the SAS administrator for the affected server.

Problems in Add Reports or Search

Cannot Add a Report

Problem: You attempt to add a report, but it fails.

Explanation: The ability to add reports and view reports is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /SASMobileBI.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

Search Fails to Return Results

Problem: The app does not return any search results for a server connection.

Explanation: The device is not connected to a network. The app requires a network connection for search to work.

Resolution: Make sure the device is connected to a network and that Airplane mode is turned off.

Note: If search continues to fail, contact your SAS administrator.

You Do Not Know the Report Location

Problem: You do not know the server name or the path in which the report is located.

Resolution: The following slideshow shows you how to find a report’s server and path information.

View the slideshow in SAS Help Center.

For detailed steps, see “Identify an Open Report’s Server and Path Information” and “Identify a Closed Report’s Server and Path Information”.

Note: If search continues to fail, contact your SAS administrator.
Problems in the Report Viewer

A Report Fails to Open

Problem: You cannot open a report that you have previously viewed. This includes viewing the report on another device or desktop system.

Explanation: The report state is saved on the server. When you previously viewed the report, the report state was corrupted on the server. A report cannot be opened when its report state is corrupted. For more information, see “Restoring the Report State”.

Resolution: Complete the following steps:

1. Locate the report’s tile in My Reports.
2. Touch and hold on the report tile.

Report Data Is Missing or Incomplete

Problem: The report either partially opens or the app displays the following message:

A server data request was not fulfilled. The object data might be missing or incomplete. Make sure that a network connection is available such as a cellular, Wi-Fi, or other network.

Explanation: This problem occurs when the device is not connected to a network. The report uses data conditions that force SAS Visual Analytics App to retain a live connection with the report server. This connection enables the app to download additional data in response to interactions. This live connection is lost when the device is not connected to a network.

Resolution:

- Make sure that the Airplane Mode setting is turned off. This setting is located in the iOS Settings app.
- Make sure that you currently have a wireless, cellular, or other network connection.

Report Is Missing Web Content

Problem: You see a blank space in a report where web content should appear.
Explanation: Report designers can include a link to web content (such as an external page or YouTube video) in a report. The content to which the link points appears in the report.

The content might be missing because of the following reasons:

- there is no internet connection.
- there was an error in how the link was added to the report.
- the link might no longer be valid.

Resolution:

- Make sure that you currently have a Wi-Fi or other internet connection.
- Contact the report designer.

Columns Do Not Sort in a Table

Problem: You tap a column heading in a table and the column data does not sort.

Explanation: When the column data does not sort, it might be because of one or more factors:

- Some reports might use a type of data that the app cannot dynamically sort.
- Sorting might be disabled for some objects.

Resolution: Contact your report designer about the design of the report.

Drive Time and Drive Distance Are Missing on an Esri Map

Problem: A report includes an object that is an Esri map. However, only the Distance selection is available. The Drive time and Drive distance selections are missing.

One or more of the following situations might be the cause:

- Explanation 1: The affected report is located on a server running SAS Visual Analytics 7.5 or earlier. Drive time and drive distance functionality are provided by release 8.1 and later.
  
  Resolution 1: The server must be running SAS Visual Analytics 8.1 or later. Contact your SAS administrator.

- Explanation 2: You require an additional Esri setting assigned to your user ID.
  
  Resolution 2: Contact your SAS administrator. Your user ID in SAS Visual Analytics must be assigned the URI /webDataAccess/esri/user/token.

  For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

- Explanation 3: The server does not have your Esri credentials.
  
  Resolution 3: You must enter your Esri credentials for the applicable server connection in SAS Visual Analytics App.
Note: Depending on your organization, Esri credentials and the server connection credentials can differ. Contact your SAS administrator about your Esri credentials.

## Cannot View Comments

**Problem:** You cannot view comments associated with a report or its contents.

**Explanation:** The ability to view comments is controlled by an administrative setting.

**Resolution:** Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /comments/comments.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Add and View Comments.

**For more information,** see "URIs and Capabilities That Affect the Mobile App" on page 90.

## Cannot Add Comments

**Problem:** You cannot add a comment to a report or its contents.

**Explanation:** The ability to add comments to a report or its contents is controlled by an administrative setting.

**Resolution:** Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /comments/comments.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Add and View Comments.

**For more information,** see "URIs and Capabilities That Affect the Mobile App" on page 90.

## Comment Topic Title Displays (no subject)

**Problem:** The words (no subject) appear when a comment is displayed.

**Explanation:** The Comments feature has been modified and for reports created on servers running SAS Visual Analytics 7.3, 7.4, or 7.5, (no subject) might be shown in the topic title field.

- Comments entered by using the SAS Visual Analytics web application or SAS Visual Analytics App for Windows 10 display (no subject) for the topic title.
- Comments entered by using SAS Visual Analytics App for iOS display a topic title that you entered while using the mobile app.
Cannot Subscribe to Alerts

Problem: You cannot access the Alerts view in the report viewer and subscribe to alerts.

The ability to subscribe to alerts is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.2 or later) The required URI is /reportAlerts/*.
  
  Note: The Alerts feature is not supported by SAS Visual Analytics 8.1.

- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Personalization.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

Alerts Do Not Work

Problem: Alerts do not work for a report.

Explanation: The Alerts feature is not supported on servers running SAS Visual Analytics 8.1. It is supported on all other releases.

Resolution: Contact your SAS administrator about the version of SAS Visual Analytics.

The Present Screen Feature Disconnects Too Soon

Problem: You are presenting your screen to others and the present screen feature disconnects while your device is idle.

Explanation: When the device is idle longer than the **Automatic Disconnect** setting, the present screen feature automatically disconnects and stops the presentation.

Resolution: You can adjust the **Automatic Disconnect** setting:

1. In **My Reports**, tap ...
2. Tap **Advanced Settings**.
3. Scroll down and tap **Automatically Disconnect**.
4. Tap your selection.
5. To return to SAS Visual Analytics App, tap **Analytics** in the upper left corner.
Problems in the Screen Presentation Web Application

A screen presentation shows you another person’s device while they are viewing SAS Visual Analytics App. The presentation opens in your web browser. You do not need SAS Visual Analytics App.

The Link to the Presentation Fails to Open

Issue: You received an email invitation to a screen presentation. When you clicked the link in the email, the link fails to open the web page.

Explanation: You must be on the same network as the screen presenter. If you are at another location that uses a different network, the web viewer security blocks the web page from opening.

Resolution: Identify the network that your device is using. Ask the presenter which network the mobile device is using. One of you must change your selected network to be the same as the other.

The Screen Appears to Freeze

Issue: During the presentation, there is no activity on the screen.

Explanation: During longer presentations, the screen might freeze.

Resolution: Ask the presenter whether they are actively navigating a report or the app. If the presenter is active, sign out of the web viewer and then sign in again.

My Device Cannot Connect to Any Servers

Issue: The mobile device was disconnected from a server, and now all the connections and reports are gone.

Explanation: The device might have been added to a blacklist. A blacklist is used to prevent specific devices from having access to server connections and reports. A network administrator might add a device to the blacklist when the employee who uses it leaves the company, or if the device is lost or stolen. Adding a device to the blacklist removes all server connections and reports from that device.

Resolution: Contact your network administrator. They can remove the device from the blacklist if that is the issue.

Note: After the device is removed from the blacklist, you will have to add the server connections and reports back.
A Page Tile Does Not Display an Image

Problem: When you view the table of contents for a report, one or more page tiles do not display an image.

Explanation: Some types of objects do not provide an image for a page tile. For example, tables, crosstabs, and gauges do not provide images.

Resolution: The page tile is working as designed.

Cannot Email or Share Reports

Problem: You cannot email, text message, or share reports in any way.

Explanation: The ability to share a report is controlled by an administrative setting.

Resolution: Contact the SAS administrator for the affected server.

- (SAS Visual Analytics 8.1 or later) The required URI is /SASVisualAnalyticsCommon_capabilities/shareReport.
- (SAS Visual Analytics 7.3, 7.4, and 7.5) The required capability is Email.

For more information, see “URIs and Capabilities That Affect the Mobile App” on page 90.

AirDrop Does Not Work as Expected

Problem: AirDrop does not work as expected when sending content to an iPhone or iPad in the following situations:

- When multiple reports are selected in My Reports, Recent, Favorites, or collections, AirDrop is not available.
- When AirDrop is used to share an annotated image of a report, the image is shared, but not the link to the report.

Explanation: On iOS devices, AirDrop cannot receive content if one app cannot open all of content at one time. For example, an annotated image can be opened by an app that views images, but the same app cannot open a SAS Visual Analytics report. AirDrop opts to receive only the image.

Resolution: AirDrop is working as designed.

Note: AirDrop on macOS does not have this limitation.
App Fails to Respond or Displays Unexpected Behavior

Problem: The app does not respond or the app displays unexpected behavior.

Resolution: Stop the app and, in some cases, re-install the app. Do so in the following order:

   a. Double-click the Home button. The app switcher appears. It displays the apps that are currently running on the device.
   b. Locate SAS Visual Analytics App. You might have to flick left or right to find the app.
   c. Drag SAS Visual Analytics App up on the screen to stop the app.
      Note: Removing the app from the app switcher stops the app. It does not delete the app from your device.
   d. To close the app switcher, click the Home button.

2. Restart the app to determine whether the problem is resolved.

3. If the problem persists, stop the app again using the procedure in step 1.

4. Delete the app.
   
   **CAUTION!** Deleting an app also deletes the reports and data from your device. Any server connections, user IDs, and passwords are also deleted.

   a. On the Home screen, locate SAS Visual Analytics App:

   [TIP] You might have to flick left or right to locate the app.

   b. Touch and hold the app icon until it begins to jiggle.

   c. Tap on the app icon. Tapping this badge deletes the app from your device.

   d. To stop the icons from jiggling, click the Home button.


6. Start the app to determine whether the problem is resolved.

7. If the problem persists, contact your technical support staff.
Security Features of the App

To secure reports and data on your devices, use the following features provided by SAS Visual Analytics, SAS Visual Analytics App, and other SAS software.

Default Security Features in SAS Software

The following features are provided by the software installation:

- Users must authenticate in order to establish a connection to the server.
  
  **Note:** Depending on your installation, authentication can be against the metadata server’s authentication provider or the web application server’s authentication provider.

- SAS metadata security is enforced on all reports.
Security Options Available for SAS Administrators

SAS administrators can control how a mobile device running SAS Visual Analytics App can access reports and data located on a SAS Visual Analytics server. You can use features, capabilities, and properties (alone or in combination) to control access to the server data and reports from the app.

**TIP** For SAS Visual Analytics 8.1 or later, be sure to select your version of SAS Viya from the Version list at the top of the topic.

- Functionality in SAS Visual Analytics App can be limited per user. You can control whether a user can add and view reports, share links to reports by using email, add or view comments, see and use the Favorites or Recent views, and more.

<table>
<thead>
<tr>
<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 or later</td>
<td>SAS Viya Administration: Mobile Search for “limit functionality”.</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Capabilities for End Users</td>
</tr>
</tbody>
</table>

- You can encrypt connections between mobile devices and SAS servers using Transport Layer Security (TLS).

<table>
<thead>
<tr>
<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 or later</td>
<td>Update Apache HTTP Server TLS Certificates and Cryptography</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Support for TLS with Client Certificate Authentication</td>
</tr>
</tbody>
</table>

- Use whitelists and blacklists to enable or prevent access to the server.

<table>
<thead>
<tr>
<th>SAS Visual Analytics server version</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 or later</td>
<td>SAS Viya Administration: Mobile Search for “whitelist” and “blacklist”.</td>
</tr>
<tr>
<td>7.5, 7.4, or 7.3</td>
<td>Enable or Prevent Access by Using the Whitelist and Blacklist</td>
</tr>
</tbody>
</table>

For whitelist information for app users, see “About the Whitelist”.

- Require SAS Visual Analytics App users to lock the app with a passcode.
To minimize access by users with revoked credentials, require server credentials after a user has not logged on for a specified period of time.

To minimize persistence of mobile data, specify that a user must maintain a network connection to the server while viewing a report in SAS Visual Analytics App.

For app user information, see “Remote Data Availability and Report Security”.

Incorporate your organization’s security into a custom app created by using SAS SDK. For documentation and download information, see the SAS SDK Product web page.

Security Features Provided by the App or Mobile Devices

SAS Visual Analytics App and the mobile devices on which it runs provide these additional security features:

- The apps store passwords by using native application programming interfaces (APIs). See “Password Storage on Devices”.
- Encrypt reports and data.

The operating system on the mobile device encrypts the content on the device. SAS Visual Analytics reports and data are encrypted with the rest of the contents on the device.
Some mobile devices provide face recognition (Face ID), fingerprint recognition (Touch ID), or other biometric technology.

Device passcodes

More Security Options

Your IT department can require the use of the following technologies to increase mobile device security:

- Secure Sockets Layer (SSL)
- Virtual Private Network (VPN)
- Mobile Device Management (MDM) technology such as Mobile Iron

About the Whitelist

SAS Visual Analytics App provides a whitelist feature that an organization can use to secure its servers. If your device ID is not on the whitelist, you cannot access the server.

When you connect to a secure server for the first time, a whitelist message appears if your device ID is not on the whitelist. A subsequent message provides the option to email an access request to your SAS administrator. The email contains information that your administrator requires to give you access to the server.

Note: You must know the email address of your administrator in order to send the email.

Data Availability and Reports

Where Data Can Be Located

Data used by your reports can be in one of two locations:

- Local data is stored on your device.
- Remote data is stored on the server and exists on your device only while the report is open and the device is connected to a Wi-Fi or cellular network.
Local Data Availability and Offline Reports

When you add a report, a set of files is downloaded to your device. Some of the files contain the report data. The amount of data that is downloaded depends on the complexity and volume of the data that is used in the report.

For example, if the report contains a hierarchy into which you can drill five levels, only three levels of data might be downloaded initially. How much data is initially downloaded is controlled by your SAS administrator.

Using the same example, you can drill down to a hierarchy level that requires data that is not yet downloaded. The app connects to the server to download the requested data. If your device is not connected to a network, the app cannot download more data from the server. The report is offline. Depending on how the report is designed, an offline report might continue to work as designed or some of its functionality might change because the report is offline. In the example of a hierarchy, you cannot view the data in the next level until the app has a network connection.

Network connection failures might happen for the following reasons:

- Your organization’s network is unavailable due to a technical issue.
- Your device cannot access a cellular, wi-fi, or other type of network.
- A security measure prevents your device from accessing the network or the server.

Note: For detailed information about offline functionality and settings that SAS administrators can use to adjust offline support, see the documentation on the SAS Visual Analytics App Product web page.

Remote Data Availability and Report Security

The Remote Data Option

Depending on the security setting assigned to your user ID, the data used by a report might not exist on your device. Instead, your device must be connected to the server in order to view data in the report. If there is a break in the connection, such as a cellular dead zone, the data becomes unavailable.

TIP: If a report uses remote data, the report tile in My Reports displays the cloud icon: 

If a report uses local data, this icon does not appear on the tile.

Why Reports Use Remote Data

Your organization requires that these reports have extra security.
Your SAS administrator sets this option for the user ID that you use to access the server. When this option is set, all reports on that server use remote data.

If you have any questions about this option, contact the SAS administrator for the affected server.

**How Remote Data Works**

Each time you open a report with remote data, the app connects to the server. The Prepare Data notification is displayed while the data is downloaded for temporary use. The report opens when the data is available on the device. The data is available only while you view the report.

After you close the report, the data is removed from the device. The image no longer appears on the report tile in **My Reports**. If you are not connected to a network and you try to open the report, it does not open.

**Note:** You might see remote data called tethering or live connection.

---

**URIs and Capabilities That Affect the Mobile App**

**Overview**

SAS administrators can control access to certain features in SAS Visual Analytics App. The control method differs depending on the release of SAS Visual Analytics to which the mobile app connects.

- For release 8.1 or later, access is controlled by adjusting rules applied to a user or group of users. Rules are identified by URIs (Uniform Resource Identifiers).
- For release 7.3, 7.4, and 7.5, access is controlled by assigning capabilities to a role. Then, a user or group of users are given membership to that role.

URIs and capabilities can be set on a per user per server basis. This means, for example, that a user ID might be enabled to add comments on one server, but not on another.

If a user is having trouble accessing a feature in the mobile app, their user ID might not have the necessary URI or capability. If a user is having trouble accessing a feature, verify the URI or capabilities that have been assigned to their user ID for the applicable server.

---

**URIs Used for SAS Visual Analytics 8.1 and Later**

The following URIs control access to features in SAS Visual Analytics App when the app connects to SAS Visual Analytics 8.1 and later.

- `/SASMobileBI/**`
Capabilities Used for SAS Visual Analytics 7.3, 7.4, and 7.5

The following capabilities control access to features in SAS Visual Analytics App when the app connects to SAS Visual Analytics 7.3, 7.4, and 7.5.

- View Report and Stored Process
- Add and View Comments
- Email
- Export Data
- Export or Print as PDF
- Personalization
- Purge Mobile Report Data
- Limit Duration of Offline Access
- Require Passcode on Mobile Devices

For more information, see the applicable Administration Guide and search on the name of the capability:
Password Storage on Devices

SAS Visual Analytics App accesses servers on which reports are located. Typically, these servers are configured to require a user ID and password before permitting access. SAS Visual Analytics App stores the user ID and password on the mobile device.

The app uses application programming interfaces (APIs) provided by the mobile device's operating system to store and retrieve this information:

- Android uses the AccountManager API.
- iOS uses the Apple Keychain APIs.
- Windows uses the Microsoft Credentials Locker.

Remove All Data and Reset the App

When you restore the app default settings, the following changes occur:

- All of the reports and data are removed from your device.
- All of the server connections are removed from the app.
- All of the app settings are restored to the default settings.

To restore the default settings:

1. In My Reports, tap ...
2. Tap Advanced Settings.
3. Tap the Restore Default Settings switch.
4. To return to SAS Visual Analytics App, tap Analytics in the upper left corner.
Supported Versions of SAS Visual Analytics and the Desktop Report Viewer

SAS Visual Analytics

The mobile app supports SAS Visual Analytics 8.4, 8.3, 8.2, 8.1, 7.5, 7.4, and 7.3.

Desktop Report Viewer

The mobile app provides comparable viewer features to the desktop report viewer. The desktop report viewer is installed with SAS Visual Analytics and is available via the web browser on your desktop system.

Depending on the version of SAS Visual Analytics installed on your server, the report viewer has the following name:

<table>
<thead>
<tr>
<th>Release</th>
<th>Viewer Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.4</td>
<td>SAS Visual Analytics¹</td>
</tr>
<tr>
<td>8.1, 8.2, and 8.3</td>
<td>SAS Report Viewer</td>
</tr>
<tr>
<td>7.5, 7.4, and 7.3</td>
<td>SAS Visual Analytics Viewer</td>
</tr>
</tbody>
</table>

¹ The features in SAS Report Viewer are now fully integrated into the SAS Visual Analytics user interface.
Getting Help

Ways to Get More Help

If you have problems with a report, contact the report designer or your SAS administrator.

For more help:

- see the documentation about SAS Visual Analytics at SAS Visual Analytics web page.
- participate in the SAS Visual Analytics section of the SAS Community web site.
- contact SAS Technical Support.

Give Feedback

If you have feedback about SAS Visual Analytics App, contact SAS.

**TIP** This link opens your email app.

If you have feedback about the Help, submit your comments using the feedback form. In the Feedback category list, select Documentation.
Get Information about SAS Products

For more information about SAS Visual Analytics and SAS Visual Analytics App:

See the SAS Visual Analytics App page at this address:
http://www.sas.com/mobile

Email for information:
mobileapps@sas.com

TIP   This link opens your email app.

For information about SAS SDK, a free developer’s toolkit for creating custom mobile apps for SAS Visual Analytics reports, see developer.sas.com. SAS SDK is available for iOS and Android operating systems.

User Interface Help

My Reports

Shows all of the reports that you have added on this mobile device.

Need an overview of the app? See the Welcome page.

Common Tasks

View a Report: Tap the report tile.

Add a New Report to My Reports

"Update a Closed Report"

Add a Report to Favorites

Print a Report

TIP   You can print reports whether or not you have added them to your device. You must use an AirPrint-enabled printer.

More Tasks

View Your Favorite Reports

Review Your Recent Report Access from All Devices

View Collections of Reports
Add Reports Window

Shows your server connections and the reports that they contain.

Need an overview of the app? See the Welcome page.

Common Tasks

“Add a Report”
“Add a Server Connection”
“Locate a Report on a Server Connection”
“Search Reports”
Print a report

**TIP** You can print reports whether or not you have added them to your device. You must use an AirPrint-enabled printer.

More Tasks

View Report Details: Tap the report tile.
“Change the Password for a Server Connection”
“Clear Recent”
“Email or Text a Report”
Troubleshooting Problems in Add Reports or Search

Report Viewer

View your reports. Explore your data. Share your screen.

Need an overview of the app? See the Welcome page.

Common Tasks

Use Features Designed into the Report
View Reports and Objects
“View Information about an Object”
“View an Object Using the Full Screen”
Update the Report
Print a Report

**TIP** You must use an AirPrint-enabled printer.

More Tasks

Present Your Screen to Others
Annotate a Page from a Report
“Email or Text a Report”
Troubleshooting Problems in the Report Viewer

Favorites

Reports added to your favorites on this or another device. See “Your Favorites on Every Device”.

Need an overview of the app? See the Welcome page.

Common Tasks

Add a Report: Touch and hold on the report tile, and then tap **Add**.
View a Report
“Update a Closed Report”
Print a Report

**TIP** You can print reports whether or not you have added them to your device. You must use an AirPrint-enabled printer.

More Tasks

Remove a Report from Favorites
“Email or Text a Report”
Troubleshooting Problems in the Favorites View

Recent

Reports that you have recently viewed on this or another device.

Need an overview of the app? See the Welcome page.

Common Tasks

Add a Report: Touch and hold on the report tile, and then tap **Add**.
View a Report
“Update a Closed Report”
Print a Report

**TIP** You can print reports whether or not you have added them to your device. You must use an AirPrint-enabled printer.

More Tasks
“Clear Recent”
Add a Report to Favorites
“Email or Text a Report”
Troubleshooting Problems in the Recent View

### Collections

Shows a group of reports that a collection owner has selected and made available to you.

Need an overview of the app? See the Welcome page.

### Common Tasks

“Auto-add a Collection”
View a Report
“Update a Closed Report”
Print a Report

**TIP** You can print reports whether or not you have added them to your device. You must use an AirPrint-enabled printer.

More Tasks
“Remove Auto-add”
Add a Report to Favorites
“Email or Text a Report”
Troubleshooting Problems in a Collection